

## A PRELIMINARY LIST OF THE BUTTERFLIES OF NORTH-EASTERN MISSISSIPPI.

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The following list of fifty-three species of butterflies has been prepared by reference to the collection of the Miss. Agricultural Experiment Station, which has been collected by the writer during the past three seasons. No study of the food-plants of the species has been made, nor has an attempt been made to make the list complete, the species reported being those which have been collected at odd times in general collecting. However, the list is given here in the hope that it may interest those who may be especially interested in the subject, no list of the butterflies of this state having heretofore been presented.

In this connection I may say that the state of Mississippi presents five quite distinct faunal regions to the entomological eye.

(1) Extending along the western border of the state is the delta region or bottom lands of the Mississippi River where the country is quite level and the soil very rich. In some years this region is subject to overflow and on this account its fauna presents many things of interest, entomologically Hemiptera and Coleoptera predominating.

(2) Along the north-eastern border of the state near the Alabama line is the prairie region, which presents many

characters similar to the bottom lands of the Mississippi River, but is not subject to overflow.

(3) The southern and especially the south-eastern portion of the state is known as "the piney woods" region, and here, as would naturally be the case where the forest is of different nature from surrounding localities, the insect fauna is much different than in other localities.

(4) Along the extreme southern border at the Gulf coast is perhaps the richest entomological field where, as is generally the case along a coast line, many species are found which are not present a few miles in the interior.

(5) The central and northern portions of the state present the largest but not the richest faunal region and it is at the eastern border of this region in Oktibbeha county that the species listed below have been collected, although at some future time I may be able to list the species of the other regions, that of the Gulf coast especially.

It is thus seen that the state presents a varied fauna. I may say, however, that any given locality does not present a richness of species, but rather a great number of individuals of the species which are present. Many of the commoner species of butterflies are present the year round even in mid-

winter, when some of our bright days are too tempting for them to hibernate all the time.

The following is the list:—

1. *Danais archippus*, Fabr. While by no means rare, this species is not as abundant as in the northern states.

2. *Agraulis vanillae*, L. Not common.

3. *Euptoieta claudia*, Cram. Very common, especially in Sept.

4. *Phyciodes tharos*, Dru. This is perhaps our most common species.

5. *Grapta interrogationis*, Fabr. Quite common, on the College campus the larvae feeding upon a common climbing plant, the Cross Vine, *Bignonia capreolata*. This plant is quite common in the woods south of the Ohio River and it is probably the more common food-plant of *Grapta* in the South.

6. *Vanessa antiopa*, L. While often found, this species is rare here in comparison with its occurrence in the northern states. I have often taken specimens in January when they are found hibernating at the side of logs.

7. *Pyrameis huntera*, Fab. Somewhat abundant.

8. *P. cardui*, L. Rarer than the above.

9. *Junonia coenia*, Hbn. One of the most common species, being especially abundant in Sept. on the flowers of various species of *Aster*, of the *Compositae*.

10. *Limenitis disippus*, Gdt. Hardly as common as *D. archippus*.

11. *Apatura celtis*, Bd.-Lec. Rare.

12. *A. proserpina*, Scudd. Rare.

13. *Anaea andria*, Scudd. Rare.

14. *Neonympha gemma*, Hbn. Very common in the woods in Sept. and Oct.

15. *N. eurytris*, Fabr. Rare.

16. *N. sosybius*, Fabr. Very common in Sept. and Oct.

17. *Satyrus alope*, Fabr. Not common.

18. *Libythea bachmani*, Kirtl. Not common.

19. *Thecla halesus*, Cram. Not common.

20. *T. acadica*, Edw. Rather abundant.

21. *T. edwardsii*, Saund. Not common.

22. *T. poeas*, Hbn. Rather common in Sept.

23. *Lycaena pseudargiolus*, Bd.-Lec. Not common.

24. *L. comyntas*, Gdt. Very abundant.

25. *Pieris rapae*, L. Very abundant and one of our most injurious species. It may be seen the year round, except perhaps a few cold days in mid-winter.

26. *P. protodice*, Bd.-Lec. Not common. I have captured specimens only in April.

27. *Nathalis iole*, Bdv. While this species is not abundant here, it is more so than in the north.

28. *Catopsilia eubule*, L. Very common, especially in early Sept. when the species occurs in large numbers around flower beds. Also seen on bright days throughout the winter.

29. *Meganostoma caesonia*, Stoll. While this species is not common, it is more so than at the north.

30. *Colias eurytheme*, Bdv. Very abundant throughout the year, the variety *keewadin*, Edw. being the most common while several alba forms have been taken.

31. *C. philodice*, Gdt. Quite abundant but not as much so as the preceding.

32. *Terias nicippe*, Cram. Common in Sept.

33. *T. lisa*, Bd.-Lec. More common than the preceding.

34. *T. jucunda*, Bd.-Lec. Rarer than the two preceding.

35. *Papilio ajax*, L. More common than at the north.

36. *P. turnus*, L. Not so common as at the north.

37. *P. cresphontes*, Cram. Rather rare, at least much more so than in the southern portions of the state and in La.

38. *P. troilus*, L. Very common.

39. *P. philenor*, L. Much rarer than preceding.

40. *Ancyloxypha numitor*, Fabr. Not abundant, but more so than at the north.
41. *Pamphila campestris*, Bdv. Not common.
42. *P. phylaeus*, Dru. One of our most common species.
43. *P. cernes*, Edw. Abundant.
44. *P. accius*, S. and A. Abundant.
45. *P. pontiac*, Edw. Not common.
46. *P. eufala*, Edw. Not common.
47. *P. fusca*, G. and R. Rare.
48. *Pyrgus tessellata*, Scudd. A very common species.
49. *Nisoiades juvenalis*, Fab. Common.
50. *Pholisora catullus*, Fabr. Common.
51. *Eudamus pylades*, Scudd. Common.
52. *E. bathyllus*, S. & A. Very common.
53. *E. tityrus*, Fab. Common.

## NOTES ON THE REARING OF PLATYSAMIA CECROPIA.

BY KATHARINE W. HUSTON, ROXBURY, MASS.

In the summer of 1892 the writer received twenty-nine eggs laid on June 30th by a *Cecropia* moth in captivity, in Roxbury, Mass. Thirteen of them were detached from the surface on which they had been deposited. On July 13th twenty-four eggs hatched, among them the thirteen just mentioned. Though the young larvae remained in the box with their egg-shells, and were carried in a satchel four hours without food, none of the shells were eaten.

One of the caterpillars died the next day, one was lost, and two were put into alcohol. Of the remaining twenty, all but one arrived at maturity after an exceedingly healthy life of six weeks and a half, during which they moulted four times. Two of them, however, when ready to spin, seemed unable to produce silk, and died. Seventeen made cocoons.

The larvae were reared in Bristol, Maine. The breeding cage was merely a pasteboard box covered with wire netting. All the caterpillars were kept in the same box. It stood in an open window, but not in the sun, and was thoroughly cleaned every day.

The caterpillars were fed on apple leaves, which were always dipped in water before being placed in the box. Only the young shoots of the trees were used, as these furnished a suitable series of leaves from the very young and tender to the mature. They

were taken from trees of widely different varieties.

The newly hatched caterpillars were about three-sixteenths of an inch long. The body was black with six rows of yellowish brown bristles extending its whole length. In a few hours the bristles also became black. On the fourth day the minute tubercles at the base of the bristles showed a decided yellow color, and on the sixth the bodies were an olive brown. On the eighth day, after having eaten nothing for about eighteen hours, the caterpillars moulted.

The color of the new skin was Indian yellow; the head, tubercles, and bristles were black; and the feet were yellow. Between the tubercles were rows of small black spots. Four caterpillars were much darker than the others. In less than an hour after their moult the Indian yellow changed to olive brown, which in turn gave place to black. Their bodies afterwards showed a yellowish tinge but were easily distinguishable from the others.

The largest ones now measured five-eighths of an inch. A few ate their cast-off skins, but the majority showed no disposition to do so, and the same was true after each successive moult.

The second moult occurred on the thirteenth day, after a fast of twenty-four hours.